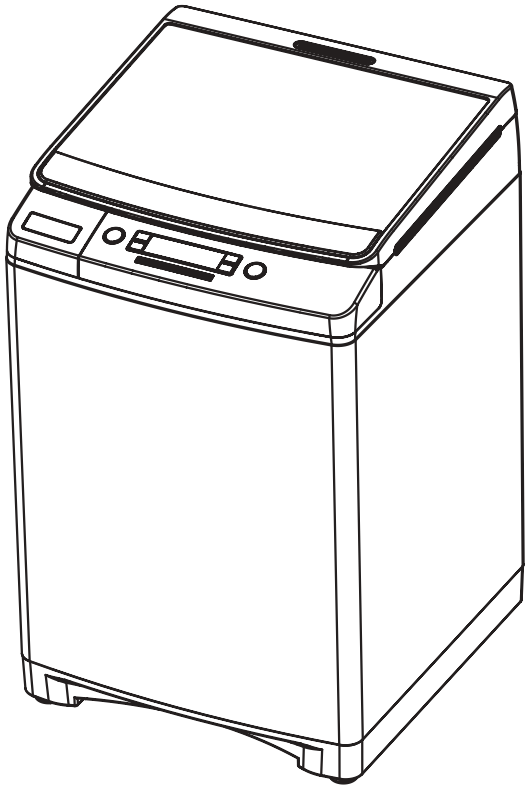
DAEWOO

Service Guides

NEW AIR BUBBLE

BUBBLE TECHNOLOGY

KUF-150Q



Contents

1. Overview of washing machine
- 1. Product features 2
- 2. Comparison of product specifications 3
- 3. Names and functions of each part 4
- 4. Functions of the buttons 5

2. Instructions for using the washing machine
- 1. Method for using the full automatic course 6
- 2. Air bubble up washing 9
- 3. Manual setting (Wash, Rinse, Spin) 11

3. Disassembly and Reassembly
- 1. Wiring diagram 12
- 2. Exploded view diagram 13
- 3. Parts list 17
- 4. Disassembly procedure 21
- 5. directions for disassemBly and adjustment 24
- 6. the repair method of gear mechanism for clutch spring problem 27

4. Electric Circuit
- 1. Sequence chart 34
- 2. Convenient service function 39
- 3. PCB error displays 41
- 4. Troubleshooting 42

1. Overview of washing machine

1. Product features

1. World's first air bubble washing method to improve washing power significantly.
2. Use of nano silver maximizes sterilization and odor removal and is antibiotic.
3. Strong and luxurious washing plate used.
4. Fine air bubbles to maximize washing power in this impeller-type washing plate.
5. Use of new digital design for the new era.
6. Use of two residue filter nets to remove fine dust completely.
7. Washing eccentricity correction water flow to remove tangling of laundry automatically.
8. Diversified range and type of washing depending on a model. Ten fully automatic courses standard, saving, wool, blanket, hand cloth, container washing, shoes, book bag, lingerie, functional garment.
9. Waterproof structure for a rear panel to protect the electrical parts.
10. Use of automatic power shut off.
11. Use of stainless washing tank with washing plates.
12. Use of front control for the power button.
13. Smart door for convenient controls.
14. Use of reinforced glass for better safety.

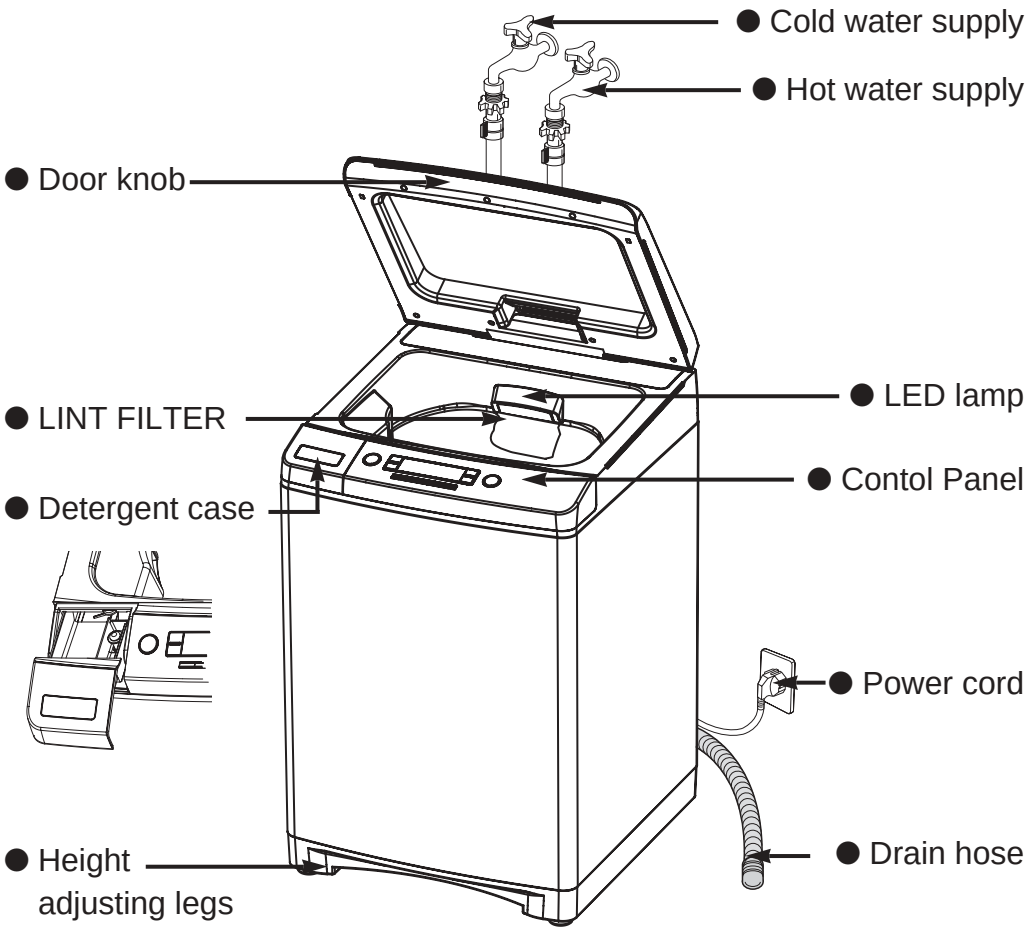
KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지3

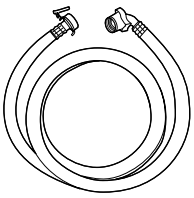
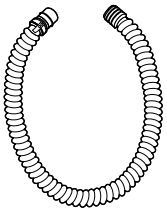
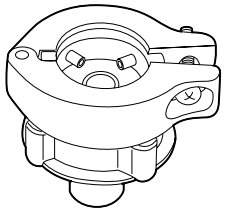
2. Comparison of product specifications

No	Items		KUF-150Q
1	Rated power consumption		600 W
2	Wash and Spin weight		15 kg
3	Weight		51 kg
4	Exterior dimension (WxHxD)		630(W)x1055(H)x720(D)mms
5	Water level	High	95 ℓ
		Mid	81 ℓ
		low	65 ℓ
		small	50 ℓ
6	Standard water level		225 ℓ
7	Nano Silver		O
8	Control Panel		Front Panel (Option button + Function button)
9	Exterior		Painting
10	Rated voltage /Frequency		Single Phase AC127V/60Hz
11	Washing type		Air bubbles + Waterfall flow + nano silver
12	Control type		Electrical front control
13	Display method		88LED + LAMP
14	Buzzer messge method		Single melody
15	Wash Course		Normal, Saving, Wool, Blanket, rag, Tub Clean, Sports shoes, Book Bags, Lingerie, Sports wear
16	Water pressure		0.3~8kgf/cm^2
17	Water Level		Electronic Sensing
18	Level meter		X
19	Softener auto injection		O
20	Cleaning agent auto injection		O
21	Reserved washing function		O
22	Auto power off		O
23	Alarm functions		O
24	Remaining time displays		O
25	Auto water refill		O
26	Laundry eccentricity correction		O
27	Residue bags		2
28	Height adjustment device		2 screw fixing units

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지4

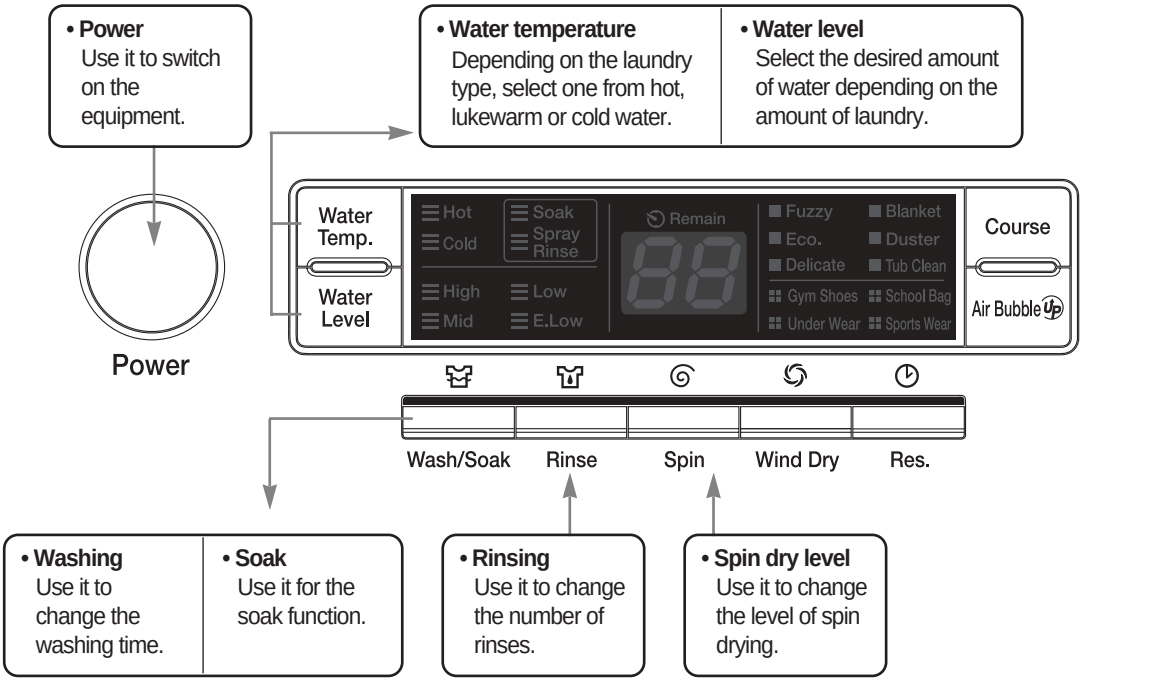
3. Names and functions of each part

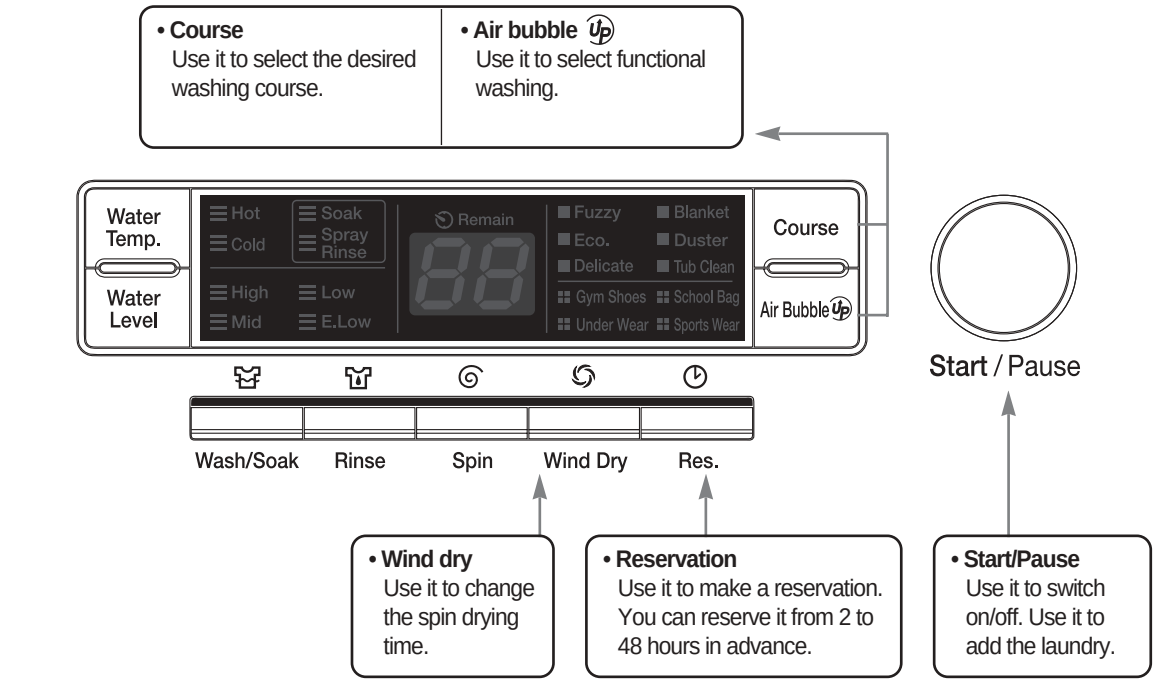


Water supply hoses (two)	Drain hose	Water hose fixer (two)	User manual
			

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지5

4. Functions of the buttons





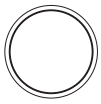
2. Instructions for using the washing machine

1. How to use a washing course

FUZZY course (Standard course method)

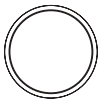
■ What is a standard course? In this course, the washer selects the best way to wash your laundry on its own.

1 Press the power button.



● If you press the power button, the standard course is selected automatically.

2 Close the cap and press the start button.



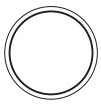
● The remaining time is displayed and the sensor takes care of the laundry on its own.

*When the washing is finished, the buzzer is heard and the power turns off automatically.

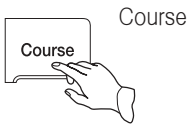
ECO course

■ This is an economic course where you can save time and water.

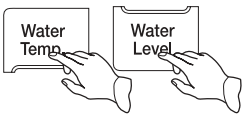
1 Press the power button.



2 Press course selection to select saving.

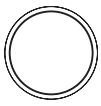


3 Select the water temperature and level.



● The default setting is mid for water level and 2 time general rinsing and 3 minutes of spin drying.

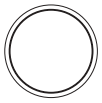
4 Press the start button.



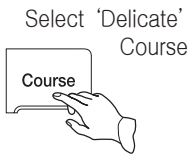
KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 7

Delicate course

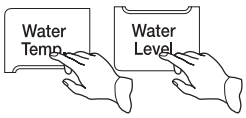
1 Press the power button.



2 Press course selection to select wool.

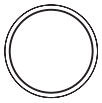


3 You must pour neutral cleaning agent in the cleaning agent case.



● The default setting is mid for water level and 2 times general rinsing and 1 minute of spin drying.

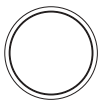
4 Press the start button.



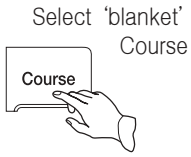
* This course is used for washing sweaters, cardigans, lingerie and stockings.
* Do not use it for dry cleaning clothes, leathers or cashmere.
  It can cause deformation or contraction.
* To prevent deformation, the water temperature should be cold, the water level should be middle or high.
* Additional washing, rinsing or spin dry can' t be done.
* Do not exceed the amount of laundry– 3kg for each washing session.

Blanket course

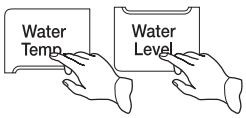
1 Press the power button.



2 Press course selection to select blanket.

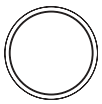


3 Select the water temperature and level.



● The default setting is high for water level and 2 times general rinsing and 5 minutes of spin drying.

4 Close the cleaning agent case and the cap and start the start button.



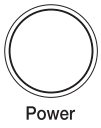
* Used for blanket or bedding that can be washed in water.
* If you pour detergent into the cold water it may stay undissolved between the blankets. Use liquid detergent.
* Do not use it for electric blanket or carpets. (It can cause damage to the washing machine or the laundry.)

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지8

Duster course

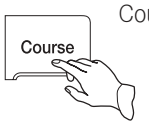
■ Used for handkerchiefs, towels or floor cloths.

1 Press the power button.

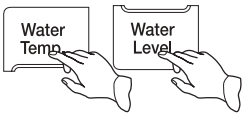


2 Press course selection to select rag.

Select 'Duster' Course

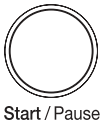


3 Select the water temperature and level.



● The default setting is Extra low for water level and 1 times general rinsing and 1 minute of spin drying.

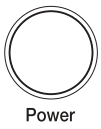
4 Press the start button.



Tub clean course

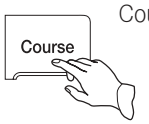
■ Use the high water level for washing tank cleaning.
■ Use the recommended detergent (oxygen–based whitener). (Do not use chloride–based whiteners.)
■ If you clean the washing tank once a month, you can keep it clean at all times.

1 Press the power button.

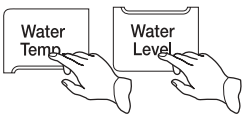


2 Press course selection to select tub clean.

Select 'tub clane' Course

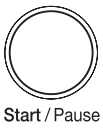


3 Select the water temperature and level.



● The default setting is high for water level and 1 times general rinsing and 3 minutes of spin drying.

4 Press the start button.

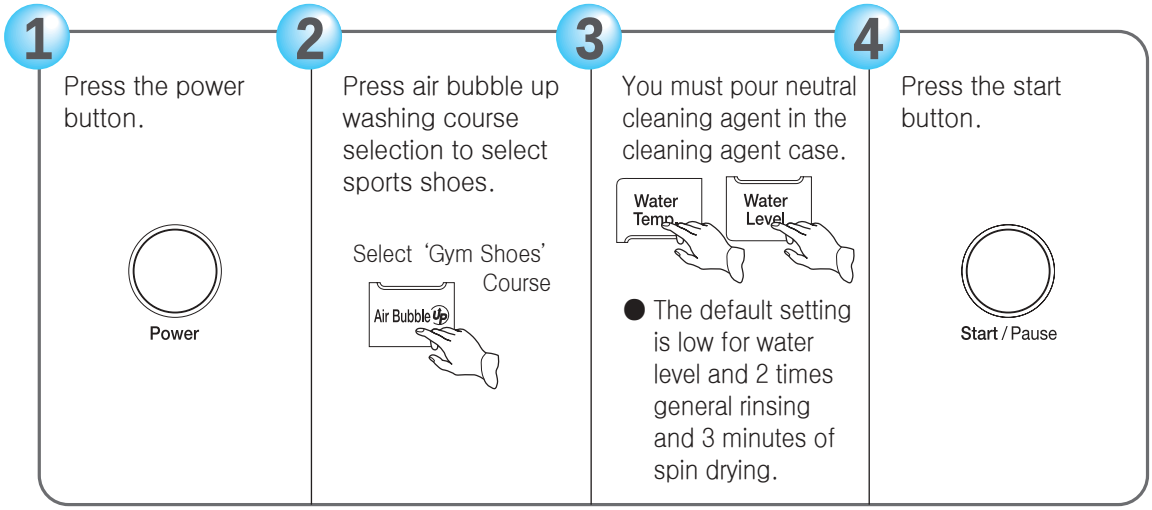


KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지9

2. Air bubble up washing

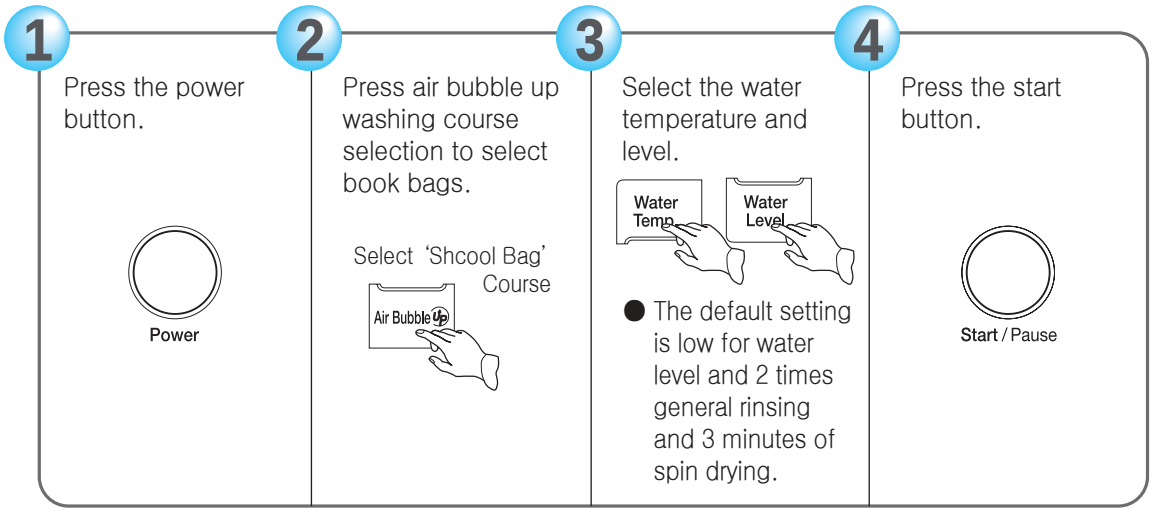
Gym Shoes course

■ Used to wash Gym Shoes.


1
Press the power button.
Power
2
Press air bubble up washing course selection to select sports shoes.
Select 'Gym Shoes' Course
Air Bubble Up
3
You must pour neutral cleaning agent in the cleaning agent case.
Water Temp.
Water Level
● The default setting is low for water level and 2 times general rinsing and 3 minutes of spin drying.
4
Press the start button.
Start / Pause

Shcool Bag course

■ Used to wash Shcool Bag.

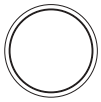

1
Press the power button.
Power
2
Press air bubble up washing course selection to select book bags.
Select 'Shcool Bag' Course
Air Bubble Up
3
Select the water temperature and level.
Water Temp.
Water Level
● The default setting is low for water level and 2 times general rinsing and 3 minutes of spin drying.
4
Press the start button.
Start / Pause

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지10

Underwear course

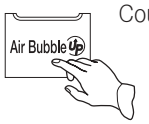
■ Used to wash underwear.

1 Press the power button.

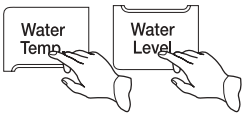


2 Press air bubble up washing course selection to select underwear.

Select 'underwear' Course

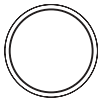


3 Select the water temperature and level.



● The default setting is low for water level and 2 times general rinsing and 3 minutes of spin drying.

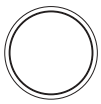
4 Press the start button.



Sports wear course

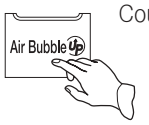
■ This course is used for mountain wear, fishing wear or gym wear.

1 Press the power button.

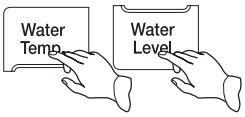


2 Press air bubble up washing course selection to select sports wear.

Select 'sports wear' Course

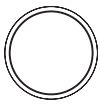


3 Select the water temperature and level.



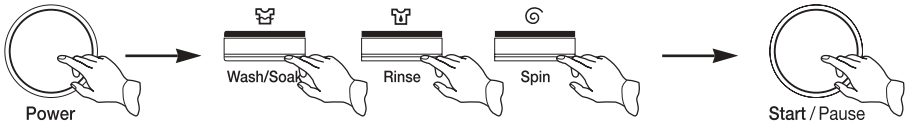
● The default setting is low for water level and 2 times general rinsing and 5 minutes of spin drying.

4 Press the start button.



3. Progress of washing/rinsing and spin drying

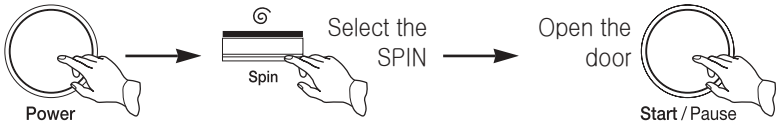
■ If you only want washing, rinsing and spin drying, then do as follows.



Use each button to change the setting.

※ When the clean rinsing lamp is on, clean rinsing will proceed.
※ In the wool or washing tank cleaning course, you can't control washing, rinsing, spin drying.

■ If you want only draining, please follow the directions below.



※ When the buzzer sound is heard, the control panel LE displays . Discharging is completed, so turn off the power.

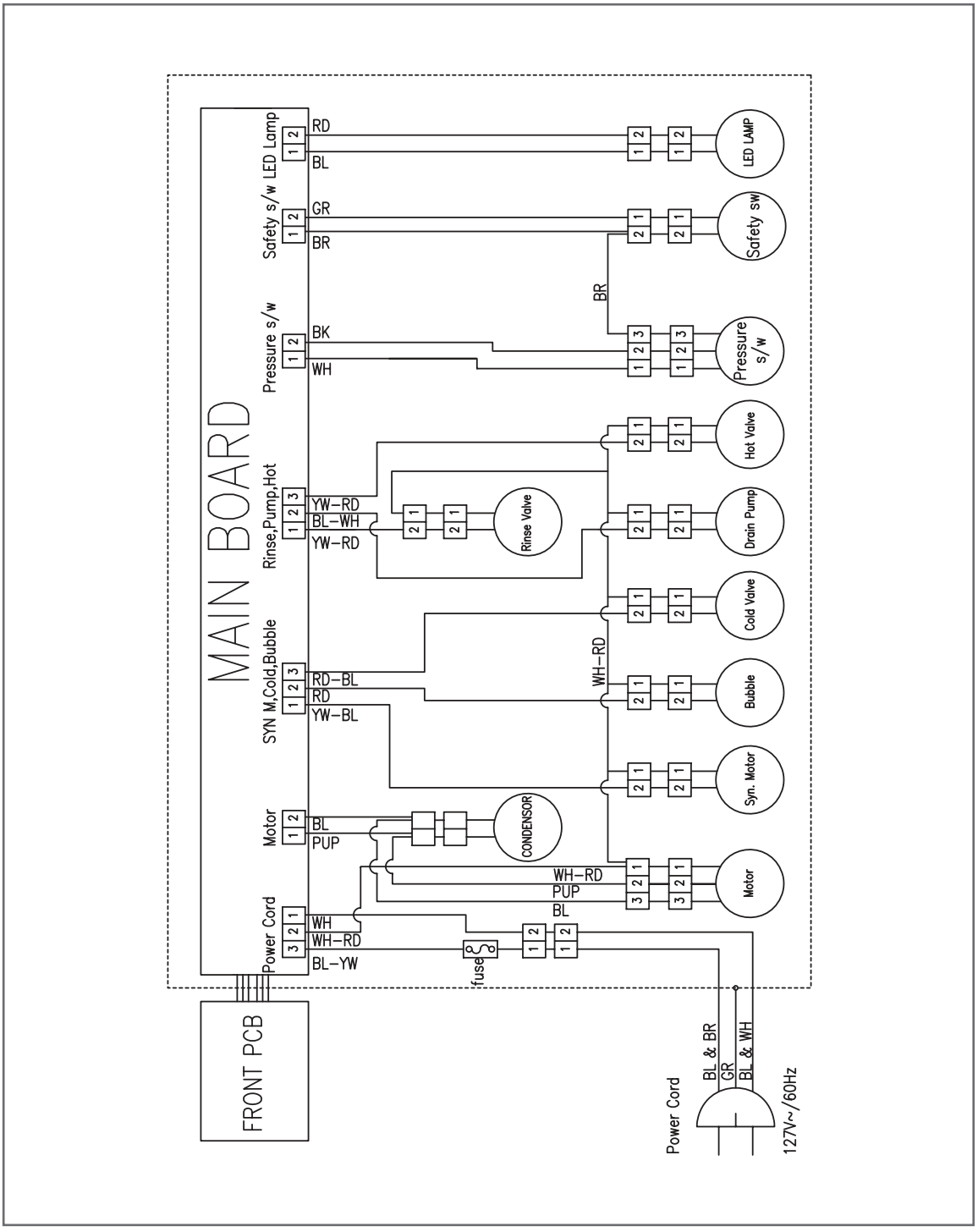
■ The washing time is changed as in the following sequence.
6 → 10 → 14 → 15 → 18 → 0 → 6 minutes. If you don't want a washing cycle, please select 0.

■ The number of rinses is changed as in the following sequence.
General1 → General2 → General3 → General4 → Clean rinsing 1 → Clean rinsing 2 → Clean rinsing 3 → Clean rinsing 4 → 0 → General 1. If you don't want a rinsing cycle, please select 0.

■ The spin drying time is changed as in the following sequence. 4 → 5 → 7 → 9 → 0 → 1 → 3 → 4 → minutes. If you don't want a spin drying cycle, please select 0.

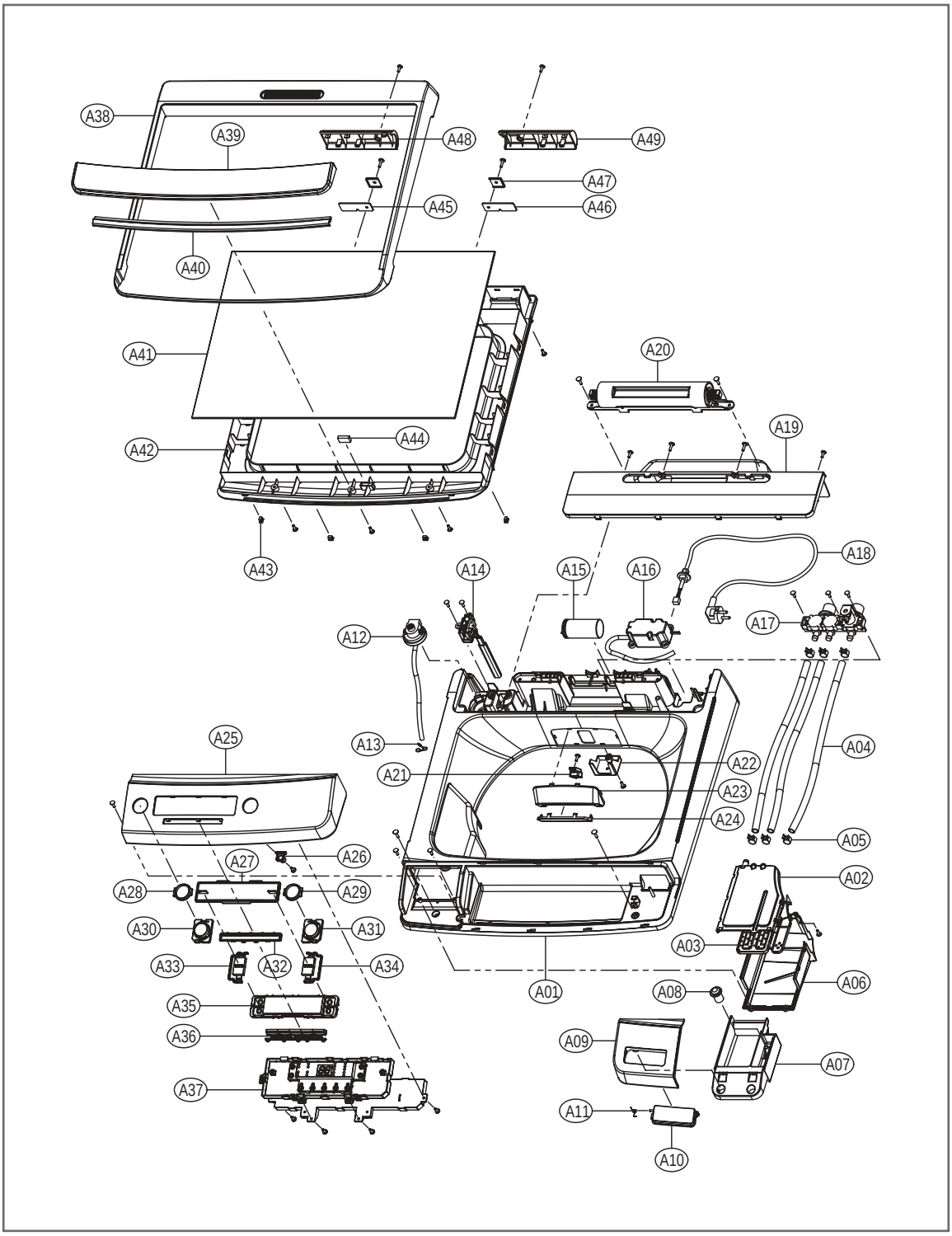
3. Disassembly and Reassembly

1. WIRING DIAGRAM

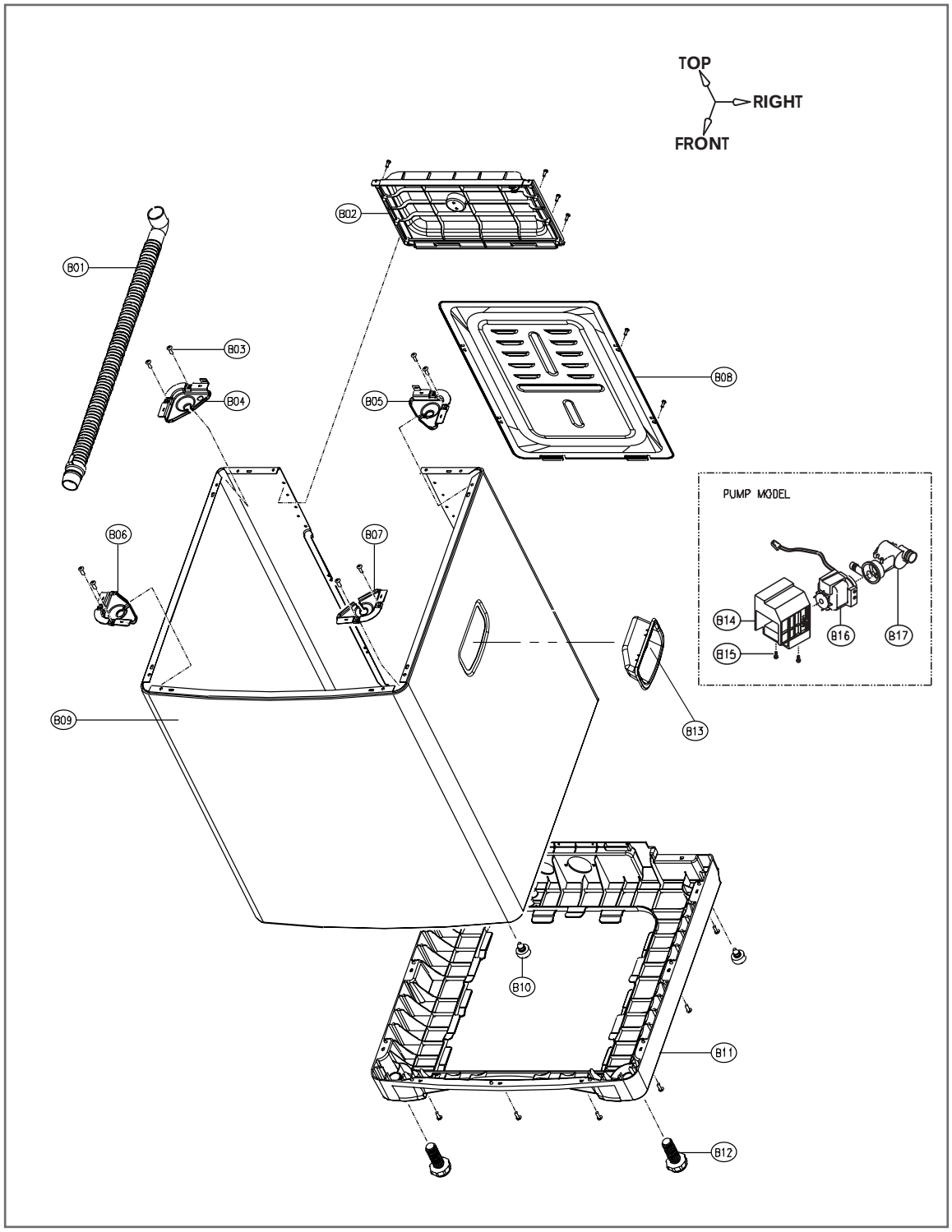


KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지13

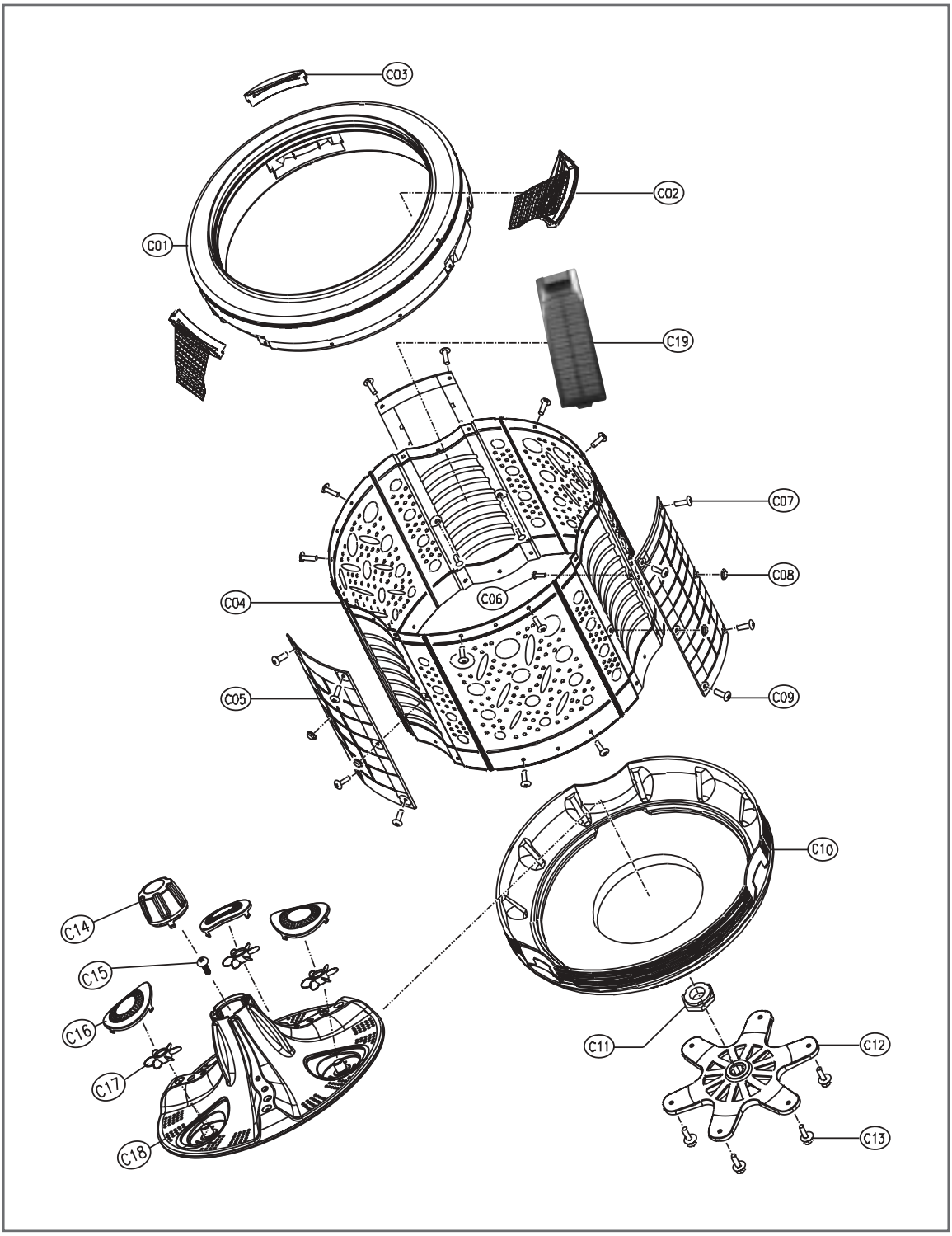
2. EXPLODED VIEW DIAGRAM



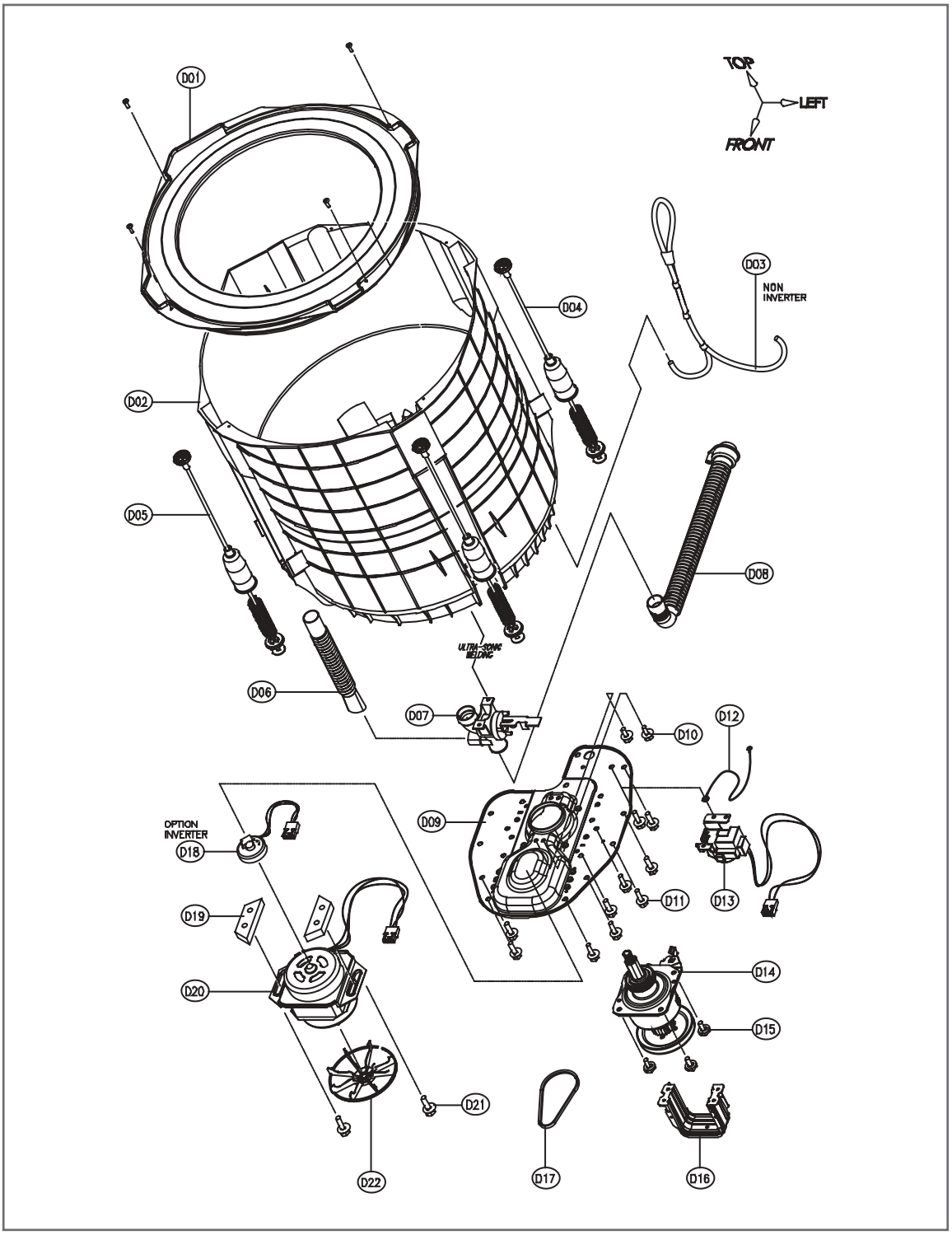
KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지14



KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지15



KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지16



KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지17

3. Parts list

1. PARTS LIST

No.	Item Code	Items	Materials and Sizes	Q'TY	Remarks
A01	3614542000	PLATE T AS	ABS, UV-BASE	1	
A02	3618105800	NOZZLE TOP	PP	1	
A03	3618105810	NOZZLE UNDER	PP	1	
A04	3613270830	HOSE INLET HOT	EPDM 60 ID9.5 OD14.5 L467.5±2.5	1	
	3613270840	HOSE INLET COLD	EPDM 60 ID9.5 OD14.5 L512.5±2.5	1	
	3613270850	HOSE INLET RINSE	EPDM 60 ID9.5 OD14.5 L522.5±2.5	1	
A05	3611205800	CLAMP HOSE	100H, ID=13.8 W=10.0 0.9T	1	
A06	3610528700	INLET BOX AS	PP	1	
A07	36111T2C50	CASE DETERGENT	PP	1	
A08	3610907800	CAP SOFTENER	PP	1	
A09	3612613600	HANDLE DETERGENT	ABS	1	
A10	3612613610	HANDLE COVER	ABS	1	
A11	3615115100	SPRING HANDLE	SUS304, D0.6	1	
A12	3614801720	SENSOR PRESSURE	0° 3PIN L=740MM	1	
A13	4507D08150	SENSOR PRESSURE CLAMP	MFZN HOSE ID-7PI	1	
A14	3619047040	SWITCH SAFETY	SF-030A23,CH09T.NO-ARM,STRAIGHT-LEVER	1	
A15	3618911300	CONDENSER	125UF 400VAZ, CAN TYPE	1	
A16	3618919020	UNIT BUBBLE GENERATOR	CDK-230V, KET D/L CON. BLUE L=200	1	
A17	3615416300	VALVE INLET	DR-23AS,C-R-H,220-240V,50/60HZ	1	
A18	3611339040	CORD POWER	CP-2PIN 100H IEC 53 (VCTF, H05W-F) 3 x 0.75 1.9M GY	1	
A19	36142T2F10	PANEL B	ABS	1	
A20	3612904500	HINGE AS	ASS'Y	1	
A21	3613625600	LAMP AS	320'S LED LAMP	1	
A22	3613625650	PROTECTOR LAMP	G-PP	1	
A23	36111T1X00	CASE LAMP	ABS	1	
A24	3615509900	WINDOW LAMP	TR-ABS	1	
A25	36142T2F00	PANEL F	ABS	1	
A26	3619048020	SWITCH DOOR AS	320'S REED SW	1	
A27	3615510200	WINDOW DISPLAY	TR-ABS	1	
A28	3611697610	DECO BUTTON L	ABS	1	
A29	3611697620	DECO BUTTON R	ABS	1	
A30	3616605300	BUTTON POWER	ABS	1	
A31	3616605400	BUTTON START	ASB	1	
A32	3615510210	WINDOW FUNCTION	TR-ABS	1	

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지18

No.	Item Code	Items	Materials and Sizes	Q'TY	Remarks
A33	3616605100	BUTTON COURSE L	ABS	1	
A34	3616605200	BUTTON COURSE R	ASB	1	
A35	3611697600	DECO WINDOW	ABS	1	
A36	3616605500	BUTTON FUNCTION	ABS	1	
A37	PRPSSW150Q	PCB AS	DWF-150Q STANBY POWER IW	1	
A38	36117AD500	DOOR OUTER	ABS	1	
A39	3611697000	DOOR DECO A	ABS	1	
A40	3611697500	DOOR DECO B	ABS	1	
A41	36117AD600	GLASS DOOR	GLASS	1	
A42	36117AD550	DOOR INNER	ABS	1	
A43	3611575000	CUSHION DOOR	CR	4	
A44	3619048300	SWITCH MAGNET	BAFE(1200GAUSS),15X25X6T,140F	1	
A45	3612904400	HINGE BRACKET F L	SPG 2.0T	1	
A46	3612904410	HINGE BRACKET F R	SPG 2.0T	1	
A47	3612904420	HINGE BRACKET REAR	SPG 2.0T	2	
A48	3611432200	COVER HINGE L	ABS	1	
A49	3611432300	COVER HINGE R	ABS	1	
A50	361279A100	HINGE AS		1	
A51	3618947910	UNIT FILTER	104K+THERMAL TUBE	1	
B01	3613226700	HOSE DRAIN O	L=1250mm, HANGER	1	
B02	3614538Y00	PLATE UPPER	PP	1	
B03	7122501211	SCREW TAPPING	T2S TRS 5x12 MFZN	8	
B04	3615302220	SUPPORTER TUB(BL)	SPG 1.6T	1	
B05	3615302320	SUPPORTER TUB(BR)	SPG 1.6T	1	
B06	3615302420	SUPPORTER TUB(FL)	SPG 1.6T	1	
B07	3615302520	SUPPORTER TUB(FR)	SPG 1.6T	1	
B08	3611413605	COVER BACK	0.35T	1	
B09	361081W600	CABINET	PCM,WHITE,FLORA	1	140FG
	361081W610		PCM,DARK RED,FLORA		159FP
B10	3612100330	LEG FIX	BUTYL VE	2	
B11	3610312200	BASE U	PP (DWF-1398)	1	
B12	3617702122	LEG ADJUST	VE	2	
B13	3612603300	HANDLE CABINET	PP	2	
B14	3611405320	COVER PUMP	PP(B360F)	1	
	3611405301		UL/CSZ(466FWU, HFH-400)		
B15	7112501611	SCREW TAPPING	T1 TRS 5*16 MFZN	2	
B16	3618957380	UNIT DRAIN PUMP	110-127/60, L=1310VSF	1	127/60, 110/60
	3618957290		230-240/50, L=1310VSF		220/50
B17	3611906700	FILTER AS	DMI PUMP	1	

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지19

No.	Item Code	Items	Materials and Sizes	Q'TY	Remarks
C01	3616105400	BALANCER AS	100'S, HIDDEN	1	
C02	3611904700	FILTER AS	100'S LINT FILTER AS	2	
C03	3612202900	FRAME FALL	PP	1	
C04	3618815300	TUB	SUS	1	
C05	3612507210	GUIDE FILTER AS	HIDDEN FILTER(SUS 0.6T)	3	
C06	3616008600	SPECIAL BOLT	SUS	6	FOR GUIDE FILTER
C07	3616003700	SPECIAL SCREW	SUS 5.5*16	12	FOR BALANCER AS
C08	3616008700	SPECIAL NUT	SUS	6	FOR GUIDE FILTER
C09	3616003700	SPECIAL SCREW	SUS 5.5*16	12	FOR TUB U
C10	3618815503	TUB U	13kg, M/B	1	
C11	4507D83080	SPECIAL NUT	SUS 304	1	
C12	3617200200	FLANGE TUB	ADC12, 6FOOT	1	
C13	3616007000	SPECIAL SCREW	SCM 24H, 6.5*24	12	
C14	3610920100	CAP AGITATOR	ABS	1	
C15	3616003740	SPECIAL SCREW	SUS430,6X27,WASHER,P-LOCK	1	
C16	3610920000	CAP IMPELLER	TR-ABS	3	
C17	3611885600	FAN IMPELLER	PP	3	
C18	3619708600	PULSATOR AGITATOR	PP	1	
C19	3611906300	NANO FILTER AS	NANO FILTER, ABS, 150Q	1	140FG, 159FP
			NANO FILTER, ABS, 150QS	2	140FG, 159FP
D01	3611413900	COVER TUB O	PP	1	
D02	3618807100	TUB O	1098	1	NON PUMP
D03	3613265901	HOSE BUBBLE	L=1250MM,ID=4	1	
D04	3619803900	SUSPENSION AS(B)	1398,ROD=612, SPRING=96	1	
D05	3619803800	SUSPENSION AS(F)	1398,ROD=612, SPRING=104	1	
D06	3613208901	HOSE OVERFLOW	PELD, L=280MM	1	NON PUMP
D07	3615408400	VALVE DRAIN AS	1098'S, VE TYPE	1	NON PUMP
D08	3613218500	HOSE DRAIN I AS	LDPE+EVA, L=219.5	1	NON PUMP
	3613212120	HOSE DRAIN I	EVA,L=184	1	PUMP
D09	3610387400	BASE	SECEN 2.0T	1	
D10	3616006900	SPECIAL SCREW	SCM 24H, 6.5*18	4	
D11	3616007000	SPECIAL SCREW	SCM 24H, 6.5*24	14	
D12	3612712200	INNER EARTH WIRE	GN VSF(30/0.18)	1	
	3612713150	HARNESS EARTH WIRE	VSF YW/GN L1=620 L2=200		
D13	36189L1R50	MOTOR SYNCHRONOUS	100~130V/50~60HZ,KD-DW11LJ,#1806,L1150,RD	1	127/60,110/60
	3618957610	MOTOR SYNCHRONOUS	100-130V KD-DW11LD L=1150	1	127/60
	3619617620		220/50-60,SV-MX7T06D,#1806-L1150-RED		220/50
D14	3617310200	GEAR MECHANISM	GM-1300-KS6P2(SPUR)	1	

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지20

No.	Item Code	Items	Materials and Sizes	Q'TY	Remarks
D15	7341801511	BOLT HEX	6B-1 8*15 MFZN	4	
D16	3618301300	PROTECTOR GEAR	SBHG 1.6T	1	
D17	3616590220	BELT V	M20.5, AGING	1	60HZ
	3616590230		M21, AGING		50HZ
D18	3614800710	SENSOR HALL AS	DWF-100MV, 5.4	1	INVERTER
D19	3611502700	CUSHION DOWN	POM(8MM)	2	
	3964821120		WM244XA011 120V L=1450		127/60
D20	3618432000	MOTOR CONDENSER	M-TYPE DS=10 DP=48.5 60HZ	1	140FG
	3618403510		M-TYPE DS=12 DP=52.5 60HZ		159FP
D21	7650802528	BOLT HEX	6B-1 8*25 PW(3*28) MFZN	4	
D22	3618403510	PULLY MOTOR AS	ADC-12, DS=12, DP=52.5, 60Hz	1	60Hz
	3618431300		ADC-12, DP=60.5, 50Hz		50Hz

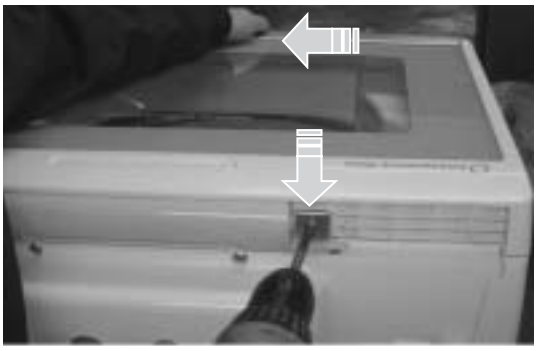
KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지21

4. Disassembly procedure

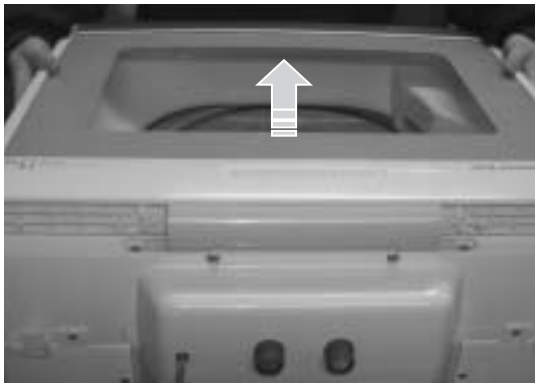
1. How to disassemble the upper plate

1) Release the four screws in the rear of the door and separate the cover.

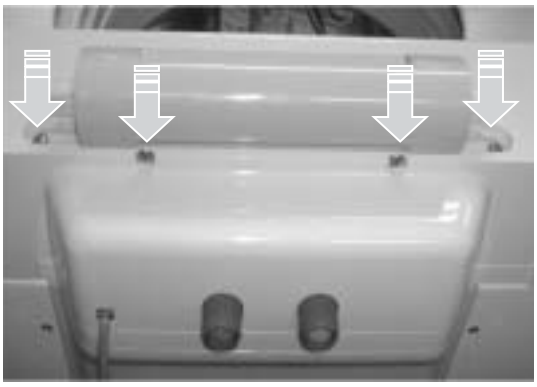
2) Separate the bracket (two units in L/R)
Caution. Separate it while holding the front of the door with one hand.



3) Separate it while pulling the door toward you.



4) Remove the four hinge fixing screws.



5) Remove the door hinge by pulling it upwards.

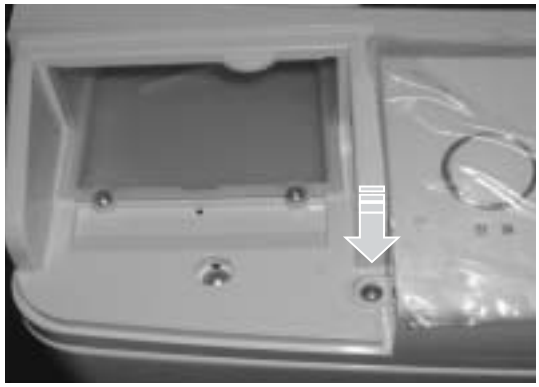
6) Using the necessary tools, separate the rubber cap and separate the screw. (2 units in L/R)

7) Remove the two rear fixing screws.

8) Remove the rear panel by pulling it upwards.

9) Separate the cleaning agent injection box by pulling it towards you.

10) Remove the Front panel fixing screw.

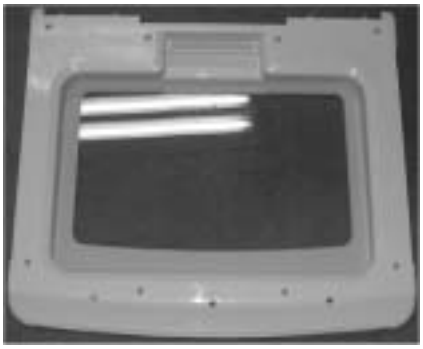


11) Push the front panel to the right and lift it up.

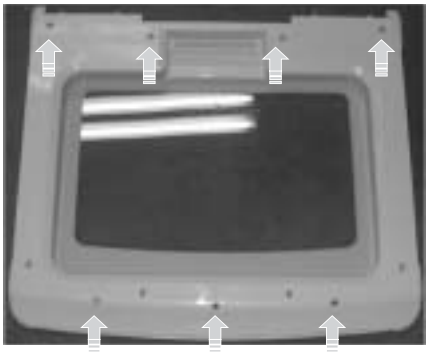
12) Remove the fixing screws for the PCB assemblu and separate the PCB assembly.

2. How to disassemble the door ass' y

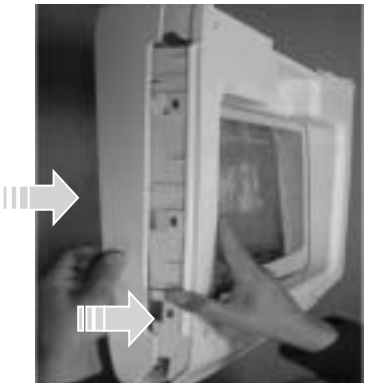
1) Place the door on top of a soft cloth or towel.



2) Remove the screws(7 EA)

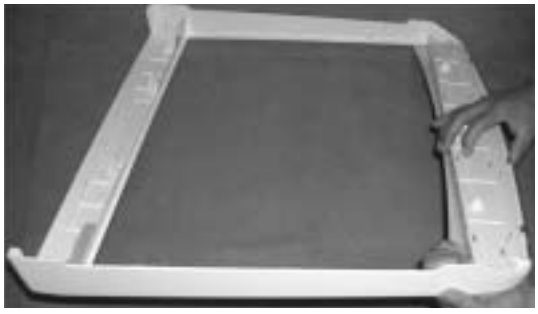


3) Push the bottom glass with one hand and pull the door with the other hand to separate it.

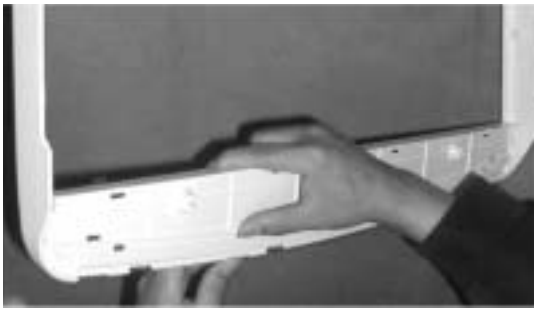


4) Remove the door glass.

5) Push the hook slightly to separate deco A.



6) As you did in 5), separate deco B.



KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지24

5. directions for disassemBly and adjustment

Warning

BEFORE ATTEMPTING TO SERVICE OR ADJUST ANY PART OF THE WASHING MACHINE, DISCONNECT THE POWER CORD FROM THE ELECTRIC OUTLET.

Gear Mechanism Ass'y Replacement

GEAR MECHANISM ASS'Y REPLACEMENT

① Raise the top plate on the outer cabinet. ② Loosen four screws mounting outer tub cover and remove outer tub cover from the tub ass'y. 	③ Remove the cap pulsator from the pulsator assy by using screw driver
④ Loosen the pulsator mounting screw and remove the pulsator. 	⑤ Remove the special nut by using "T" type box wrentch. ⑥ Remove the special washer.

⑦ Remove the tub i assy. 	⑧ Lay the front of the washer on the floor. ⑨ Remove four special bolts of gear protect by using a box wrentch and remove gear protect. ⑩ Remove the V-belt.
⑪ Remove four special bolt of gear mechanism assy by using a box wrentch. 	⑫ Pull out the gear mechanism assy.

NOTES

To assemble the gear mechanism ass'y, reverse the disassembly procedure.

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 26

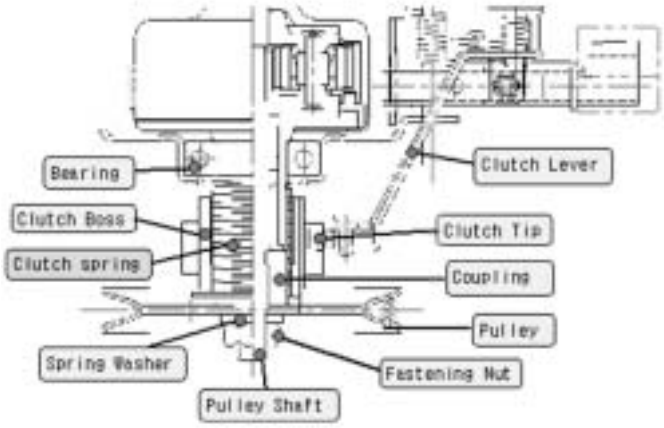
MOTOR SYNCHRONOUS AND VALVE REPLACEMENT (NON PUMP MODEL)

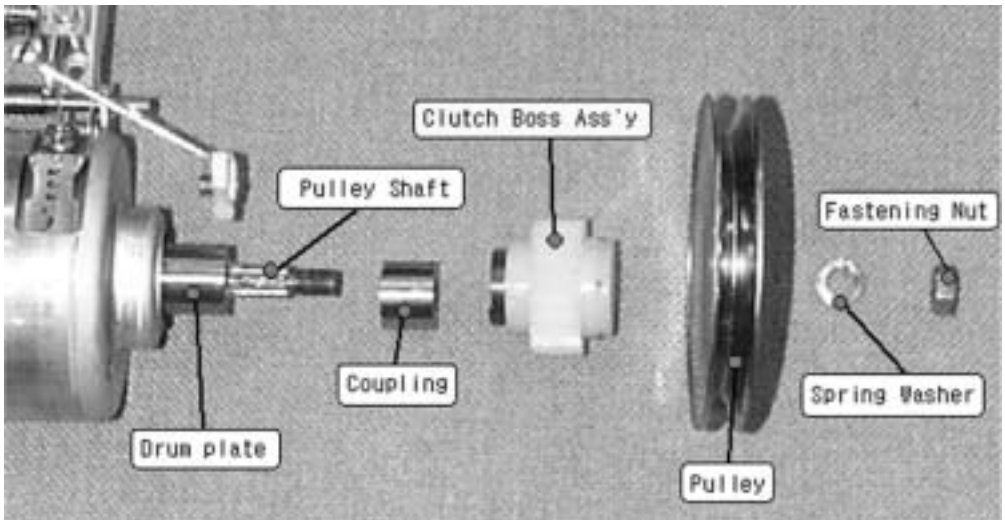
① Lay the front of the washer on the floor. ② Loosen two special screw of motor synchronous. 	③ Take out the wire of motor synchronous from the braket. ④ Separate the motor synchronous from the base.
⑤ Turn the valve by using screw driver as shown in picture. 	⑥ Remove the valve lid from the valve drain assy.

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 27

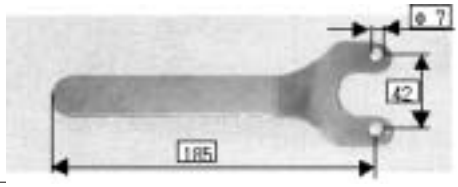
6. the repair method of gear mechanism for clutch spring problem

the structure of gear mechanism





●TOOL FOR REPLACING THE CLUTCH BOSS ASSEMBLY●

Tool name	Specification	Q'ty
Fixing jig		1
Ratchet handle		1
Socket and extension bar	socket : 10mm, 17mm	per each
Cotton yarn		some

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지28

how to check the clutch spring

CHECKING METHOD

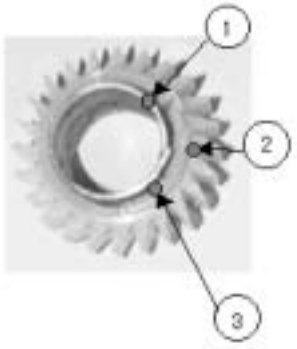
IN THIS CASE, YOU MUST EMPTY THE SPIN TUB FIRST.

1) TO CHECK THE REVOLUTION OF SPIN TUB.
IF THE SPIN TUB DOES NOT REVOLVE AND ONLY THE PULSATOR IS TURNING, THAT IS CLUTCH SPRING DEFECT.

2) TO CHECK THE SPIN SPEED(RPM) BETWEEN SPIN TUB AND PULSATOR.
IF YOU FIND THE DIFFERENT SPIN SPEED BETWEEN SPIN TUB AND PULSATOR, THIS IS ALSO CLUTCH SPRING DEFECT.

IN THIS CASE, WE ARE GOING TO SUPPLY THE CLUTCH BOSS ASSEMBLY INSTEAD OF GEAR MECHANISM ASSEMBLY. PLEASE REFER TO FOLLOWING FIG.

THE CLUTCH BOSS ASSEMBLY



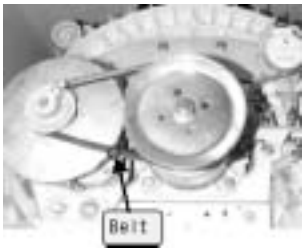
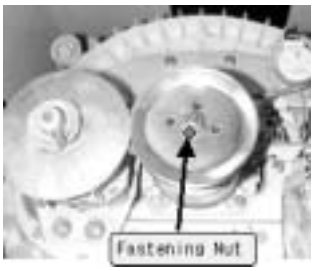
NO.	PARTS NAME	SPECIFICATION	CODE	Q'TY
1	CLUTCH SPRING	1.5*1.5	3615110000	1
2	CLUTCH BOSS	PP	3619301300	1
3	GREASE	beacon#325 3g		
PACKING METHOD	PACKING THE CLUTCH BOSS ASS'Y BY USING VINYL PACK			1

CLUTCH BOSS ASS'Y PART CORD : 3619301400

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지29

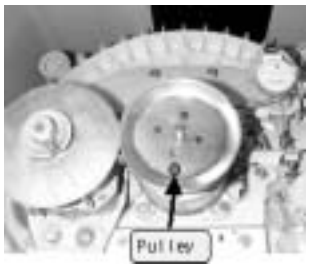
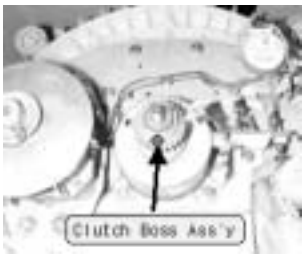
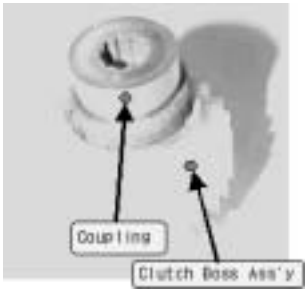
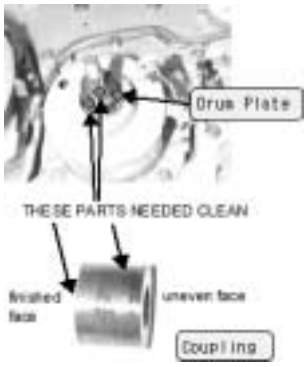
The Process Of Disassembling

Disassembling 1

No.	Process		Notice
1	Release screws marked 4-point	Remove the protector	Use wrench or driver - ratchet handle - extension bar - socket : 10mm
2		Remove the v-belt	
3		Loosen the fastening nut	Use fixing jig for pulley as to see fig 1. and 17mm-socket for nut
4		Disassemble the spring washer	Take out plain washer if it has

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지30

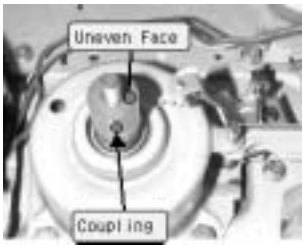
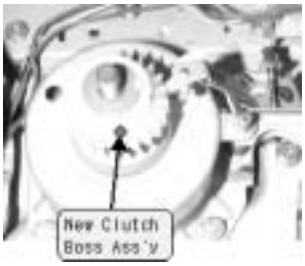
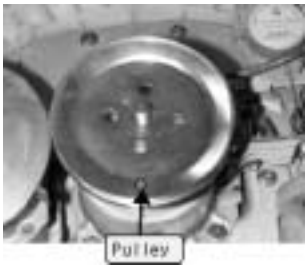
Disassembling 2

No.	Process		Notice
5		Disassemble the pulley	
6		Disassemble the clutch boss assembly	Catch the boss and pull upward with spiral rotate in the clockwise direction
7		Separate coupling from clutch boss ass'y	
8		Cleaning	Clean the drum plate, coupling surface and contact face between drum plate and coupling It is necessary to keep cotton piece goods being dry and clean

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 31

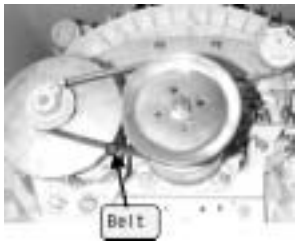
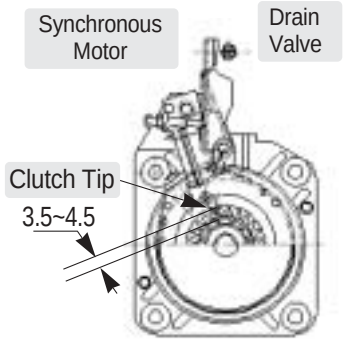
The Process Of Assembling

Assembling 1

No.	Process		Notice
1		Assemble the coupling	Check the uneven face of coupling is assembled upward
2		Assemble the new clutch boss ass'y	- Push in the clutch boss ass'y with rotating on the clockwise direction. - After assembling, rotate on the clockwise more 2~3 teeth and pull out the pulley shaft upward
3		Assemble the pulley	
4		Assemble the spring washer	If there was plain washer, you have to assemble plain washer the first and then assemble spring washer

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지32

Assembling 2

No.	Process		Notice
5		Assemble the fastening nut	- Use fixing jig and 17mm socket wrench as if disassembling, as fastening torque about 100~200kgf-cm. - Check the end-play, up and downward and check the binding force, too much or not on bi-direct of rotation.
6		Assemble the belt	
7		Assemble the protector	
8		Final checking	Finally, check the interference depth both clutch tip and clutch boss(3.5~4.5mm)

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 33

REPLACE THE CASE FILTER ASS'Y

① separate the back cover from washing machine	② remove two screws	③ remove three screws
④ turn the case filter ass'y and separate it from the drain motor	⑤ separate the drain hose i from the case filter ass'y	⑥ separate the cavitation hose from the case filter ass'y
⑦ assemble the case filter ass'y that purchased	⑧ tie up three screws	⑨ tie up two screws
⑩ assemble the hose drain I to the case filter with bond & clamp	⑪ assemble the cavitation hose to the case filter with bond & clamp	⑫ assemble the back cover to the washing machine

4. Electric Circuit

1. SEQUENCE CHART

Classification		Time	Fuzzy				ECO					
			E.low	low	mid	high	E.low	low	mid	high		
Pre Wash	Sensing	8Sec	■	■	■	■						
	Water Inlet	4Min			▮	▮			▮	▮		
		2Min	■	■			■	■				
	PRE-WASH	60Min										
		30Min										
	WASH	18Min				14Min						
		15Min			▮	▮						
		10Min	▮	▮	▮	▮						
		6Min	▮	▮	▮	▮	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 1	Drain	3Min	▮	▮	▮	▮						
		1Min	▮	▮	▮	▮	■	■	■	■		
	BALANCE SPIN	60Sec	▮	▮	▮	▮	▮	▮	▮	▮		
		30Sec	▮	▮	▮	▮	▮	▮	▮	▮		
	Mid Spin	90Sec	▮	▮	▮	▮	■	■	■	■		
		20Sec	▮	▮	▮	▮	■	■	■	■		
	Natural Stop	120Sec	▮	▮	▮	▮						
		60Sec	▮	▮	▮	▮	▮	▮	▮	▮		
		40Sec	▮	▮	▮	▮	▮	▮	▮	▮		
	Rinse Shower	60Sec										
		Sec										
	Water Inlet	4Min			▮	▮						
		2Min	■	■	▮	▮						
	Rinse	3Min										
		2Min	■	■	■	■						
		BC 35Sec	■	■	■	■						
Rinse 2	Drain	3Min	▮	▮	▮	▮						
		1Min	▮	▮	▮	▮						
	BALANCE SPIN	60Sec	▮	▮	▮	▮	▮	▮	▮	▮		
		30Sec	▮	▮	▮	▮	▮	▮	▮	▮		
	Mid Spin	90Sec	▮	▮	▮	▮	■	■	■	■		
		60Sec	▮	▮	▮	▮	■	■	■	■		
	Natural Stop	120Sec	▮	▮	▮	▮						
		60Sec	▮	▮	▮	▮	▮	▮	▮	▮		
		40Sec	▮	▮	▮	▮	▮	▮	▮	▮		
	Water Inlet	4Min			▮	▮			▮	▮		
		2Min	■	■	▮	▮	■	■	▮	▮		
	Rinse	3Min										
		2Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Spin	Drain	3Min	▮	▮	▮	▮						
		1Min	▮	▮	▮	▮	■	■	■	■		
	BALANCE SPIN	60Sec	▮	▮	▮	▮	▮	▮	▮	▮		
		30Sec	▮	▮	▮	▮	▮	▮	▮	▮		
	Spin	9Min										
		7Min										
		5Min			▮							
		3Min	▮	▮	▮	▮	▮	▮	▮	▮		
		1Min	▮	▮	▮	▮	▮	▮	▮	▮		
	Natural Stop	120Sec	▮	▮	▮	▮						
		60Sec	▮	▮	▮	▮	■	■	■	■		
Buzzer		10Sec	■	■	■	■	■	■	■	■		
Over Time Indication			43	43	56	53	23	23	27	27		

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 35

Classification		Time	Duster				Tub clean					
			E.low	low	mid	high	E.low	low	mid	high		
Pre Wash	Sensing	8Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■			■	■				
	PRE-WASH	60Min										
		30Min										
	WASH	18Min										
		15Min										
		10Min					■	■	■	■		
		6Min	■	■	■	■						
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 1	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min										
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec										
	Mid Spin	90Sec	■	■	■	■	■	■	■	■		
		20Sec										
	Natural Stop	120Sec	■	■	■	■	■	■	■	■		
		60Sec										
		40Sec										
	Rinse Shower	60Sec										
		Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■			■	■				
	Rinse	3Min										
		2Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 2	Drain	3Min							■	■		
		1Min					■	■				
	BALANCE SPIN	60Sec					■	■	■	■		
		30Sec										
	Mid Spin	90Sec					■	■	■	■		
		60Sec										
	Natural Stop	120Sec					■	■	■	■		
		60Sec										
		40Sec										
	Water Inlet	4Min							■	■		
		2Min						■				
	Rinse	3Min										
		2Min					■	■	■	■		
		BC 35Sec					■	■	■	■		
Spin	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min										
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec										
	Spin	9Min										
		7Min										
		5Min										
		3Min	■	■	■	■	■	■	■	■		
		1Min										
	Natural Stop	120Sec	■	■	■	■	■	■	■	■		
		60Sec										
Buzzer		10Sec	■	■	■	■	■	■	■	■		
Over Time Indication			28	28	32	32	32	32	36	36		

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 36

Classification		Time	Blanket				Delicate					
			E.low	low	mid	high	mid	high				
Pre Wash	Sensing	8Sec										
	Water Inlet	4Min			■	■	■	■				
		2Min	■	■								
	PRE-WASH	60Min										
		30Min										
	WASH	18Min	■	■	■	■						
		15Min	■	■	■	■						
		10Min	■	■	■	■						
		6Min	■	■	■	■	■	■				
		BC 35Sec	■	■	■	■	■	■				
Rinse 1	Drain	3Min	■	■	■	■	■	■				
		1Min	■	■	■	■	■	■				
	BALANCE SPIN	60Sec	■	■	■	■						
		30Sec	■	■	■	■	■	■				
	Mid Spin	90Sec	■	■	■	■						
		20Sec	■	■	■	■	■	■				
	Natural Stop	120Sec	■	■	■	■						
		60Sec	■	■	■	■	■	■				
		40Sec	■	■	■	■	■	■				
	Rinse Shower	60Sec										
		Sec										
	Water Inlet	4Min			■	■	■	■				
		2Min	■	■	■	■	■	■				
	Rinse	3Min	■	■	■	■						
		2Min	■	■	■	■	■	■				
		BC 35Sec	■	■	■	■						
Rinse 2	Drain	3Min	■	■	■	■	■	■				
		1Min	■	■	■	■	■	■				
	BALANCE SPIN	60Sec	■	■	■	■						
		30Sec	■	■	■	■	■	■				
	Mid Spin	90Sec	■	■	■	■						
		60Sec	■	■	■	■	■	■				
	Natural Stop	120Sec	■	■	■	■						
		60Sec	■	■	■	■	■	■				
		40Sec	■	■	■	■	■	■				
	Water Inlet	4Min			■	■	■	■				
		2Min	■	■	■	■	■	■				
	Rinse	3Min	■	■	■	■						
		2Min	■	■	■	■	■	■				
		BC 35Sec	■	■	■	■	■	■				
Spin	Drain	3Min	■	■	■	■	■	■				
		1Min	■	■	■	■	■	■				
	BALANCE SPIN	60Sec	■	■	■	■						
		30Sec	■	■	■	■	■	■				
	Spin	9Min										
		7Min										
		5Min	■	■	■	■						
		3Min	■	■	■	■						
		1Min	■	■	■	■	■	■				
	Natural Stop	120Sec	■	■	■	■						
		60Sec	■	■	■	■	■	■				
Buzzer		10Sec	■	■	■	■	■	■				
Over Time Indication			53	53	59	59	36	36				

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지 37

Classification		Time	Gym Shoes				School Bag					
			E.low	low	mid	high	E.low	low	mid	high		
Pre Wash	Sensing	8Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■			■	■				
	PRE-WASH	60Min										
		30Min										
	WASH	18Min	■	■	■	■						
		15Min					■	■	■	■		
		10Min										
		6Min										
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 1	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min										
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec										
	Mid Spin	90Sec	■	■	■	■	■	■	■	■		
		20Sec										
	Natural Stop	120Sec	■	■	■	■	■	■	■	■		
		60Sec										
		40Sec										
	Rinse Shower	60Sec										
		Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■			■	■				
	Rinse	3Min										
		2Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 2	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min										
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec										
	Mid Spin	90Sec	■	■	■	■	■	■	■	■		
		60Sec										
	Natural Stop	120Sec	■	■	■	■	■	■	■	■		
		60Sec										
		40Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■			■	■				
	Rinse	3Min										
		2Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Spin	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min										
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec										
	Spin	9Min										
		7Min										
		5Min										
		3Min	■	■	■	■	■	■	■	■		
		1Min										
	Natural Stop	120Sec	■	■	■	■	■	■	■	■		
		60Sec										
Buzzer		10Sec	■	■	■	■	■	■	■	■		
Over Time Indication			51	51	57	57	48	48	54	54		

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지38

Classification		Time	Under wear				Sports wear					
			E.low	low	mid	high	E.low	low	mid	high		
Pre Wash	Sensing	8Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■			■	■				
	PRE-WASH	60Min										
		30Min										
	WASH	18Min										
		15Min	■	■	■	■	■	■	■	■		
		10Min	■	■	■	■	■	■	■	■		
		6Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 1	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min	■	■	■	■	■	■	■	■		
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec	■	■	■	■	■	■	■	■		
	Mid Spin	90Sec	■	■	■	■	■	■	■	■		
		20Sec	■	■	■	■	■	■	■	■		
	Natural Stop	120Sec					■	■	■	■		
		60Sec	■	■	■	■	■	■	■	■		
		40Sec	■	■	■	■	■	■	■	■		
	Rinse Shower	60Sec										
		Sec										
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■	■	■	■	■	■	■		
	Rinse	3Min										
		2Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Rinse 2	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min	■	■	■	■	■	■	■	■		
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec	■	■	■	■	■	■	■	■		
	Mid Spin	90Sec	■	■	■	■	■	■	■	■		
		60Sec	■	■	■	■	■	■	■	■		
	Natural Stop	120Sec					■	■	■	■		
		60Sec	■	■	■	■	■	■	■	■		
		40Sec	■	■	■	■	■	■	■	■		
	Water Inlet	4Min			■	■			■	■		
		2Min	■	■	■	■	■	■	■	■		
	Rinse	3Min										
		2Min	■	■	■	■	■	■	■	■		
		BC 35Sec	■	■	■	■	■	■	■	■		
Spin	Drain	3Min	■	■	■	■	■	■	■	■		
		1Min	■	■	■	■	■	■	■	■		
	BALANCE SPIN	60Sec	■	■	■	■	■	■	■	■		
		30Sec	■	■	■	■	■	■	■	■		
	Spin	9Min										
		7Min										
		5Min					■	■	■	■		
		3Min	■	■	■	■	■	■	■	■		
		1Min	■	■	■	■	■	■	■	■		
	Natural Stop	120Sec					■	■	■	■		
		60Sec	■	■	■	■	■	■	■	■		
Buzzer		10Sec	■	■	■	■	■	■	■	■		
Over Time Indication			45	45	51	51	50	50	56	56		

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지39

2. Convenient functions

1. Option and LED/buzzer check (initial test mode)

1) How to enter the initial test mode
   1> While the washing and spin dry buttons are pressed, turn on the power to enter into option, LED and Buzzer check mode.

2) The option, LED and buzzer test mode will proceed as follows.

Order	Check	Time	LED	Buzzer	Remark
1	Washer capacity check	1 sec	88 display: 15		15kg
2	L/S data check Other LED: off	1 sec	88 display: L1 to 8		
3	Functional option no. check Other LED: off	2 sec	88 display: option no.		Refer to the attached option table.
4	LED, buzzer check	8 sec	88 display and other LED 0.5 sec on/off	LED on for buzzers sounds	

3) Option no.: Depending on the insertion of option diode D20 to D23, Bit 7 to Bit 0 are set and a binary number is converted into a hexadecimal. The option no. for each model is managed to prevent wrong insertion of option diodes.

4) After the above check is finished, the power is off with the power off sounds.

5) Press the water level button to check the saved L/S value. The three data will be displayed in turns.

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지40

2. Washing aging function (D1)

1) How to enter the D1 test mode
   1> During washing, press the spin dry button to enter into D1 test mode where you can perform washing aging.

2) Operation of the aging test mode
   1> Regardless of the current water level, the standard course's low water level flow time will keep operating the washing motor. If you open the door, no error is generated. The bubbles keep operating.

3) All the other LEDs are off and the 88 display will show "d1".

3. Service check function (D2)

1) How to enter the D2 test mode
   1> While in the D1 (washing aging) test mode, press the spin dry button to enter the D2 test mode where you can check the function of the washer.

2) The D2 test mode will proceed as in the following sequence to check the operational status of each load.

Order	Check	Time	Load operation	LED display
1	Check water supply.	4 Sec	Waster discharge sync motor on.	88 display: d2 Other LED: off
2	Check water discharging.	3 Sec	Water discharge sync motor + spin dry motor on.	
3	Check water discharging.	1 Sec	Hot water supply valve on.	
		1 Sec	Cold water supply valve on.	
		1 Sec	Softener injection water supply valve on.	
4	Check the washing motor and the bubbles.	1 Sec	Washing right motor on.	
		1 Sec	Bubble on	
		1 Sec	Washing left motor on.	
5	Check operation of the pump.	1 Sec	Pump on.	

3) After the above checks are finished, the power is off with the power off sounds.

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지41

3. PCB error displays

ERROR displayed	Contents
	Drain error. Check the location of the drain hose, drain synchronous motor, and bellows. Open/close the door and press “Start/Pause” to run the washer again.
	Drain error. Check if the tap is left open, water temperature is correctly selected, the hose is properly connected, or impurities are collected in the water-supply valve. Or the water-level sensor error. Open/close the door and press “Start/Pause” to run the washer again.
	The laundry tangled during spin-drying or 수평량 and safety switch error. Adjust the levelness or correct the safety switch contact. Open/close the door and press “Start/Pause” to run the washer again.
	The door opened during washing/spinning/or timing. Replace the door switch and safety switch in case the error exists after the door is closed. Open/close the door and press “Start/Pause” to run the washer again.
	Load sensing error. Replace PCB ASS’Y in case the error is indicated for 0.5 sec after load sensing operates for 7 sec and the level is always set to “High”.
	Water level sensing error. Check the water-level sensor and the connector of the water level sensor Ass’y in the back.

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지42

4. Troubleshooting

Problems	Matters to Check	Troubleshooting
No power	Check the voltage	• Check the voltage used • Check blackout and a circuit breaker
	Check the fuse ➔ Replace the fuse and check the operation in the test mode to see if the same error occurs.	• If the fuse is disconnected during water supply, replace the water-supply valve after measuring the resistance of the valve and a short is confirmed • If the fuse is disconnected during washing, replace the motor after measuring the resistance of the motor and a short is confirmed
	Check the connector and corrosion of the wiring.	• Replace the connector and harness
	Check the voltage of the regulator I.C. of PCB (Input: 12V, Output: 6V)	• Replace the PCB or parts if the error exists after checking the regulator.
No washing	After draining ➔ the wing rotates only in the one direction or makes excessive noises when it rotates in the reverse direction.	• TRIAC error on the PCB. Replace the PCB.
	Check electrical noise of the motor ➔ • Check the connector • Check disconnection of wires of the motor	• Replace the connector and harness • Replace the motor if a motor wire is disconnected • Replace the PCB if a motor wire is normal.
	Check the capacitor terminal	• Correct the contact of the capacitor terminal.
	Check abrasion of the belt	• Replace the belt

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지43

Problems	Matters to Check	Troubleshooting
No spin-drying	Check the fuse ➔ Check the voltage at both ends of the drain synchronous motor	• Replace the synchronous motor • Replace the PCB if the synchronous motor is normal
	Check the abrasion of the V belt	Replace the V belt
	Check the voltage of both ends of the motor (White-red~purple)	Replace the motor if the voltage is not normal
	Check the contact of motor start condenser	Correct the contact of the condenser terminal
No water supply	Check if the tap is left open	Open the tap
	Check if impurities are collected in the water-supply valve.	Clean the filter with a brush
	Check the connection of hose and water-supply valve	• Connect the hose with the valve properly • Check that the hose is properly connected with the nozzle
	Check electrical noise of the water-supply valve	Replace the valve if the same error persists
	Check the contact of the connector and terminal	• Take measures to prevent the same error • Replace the PCB if the error persists after correcting the contact

KUF-150Q(S,G_멕시코향) 2010.9.28 5:6 PM 페이지44

Problems	Matters to Check	Troubleshooting
Water supply not stopping	Check if water is supplied when the power is off	• Replace the water-supply valve
	Check if water is supplied continuously when the power button is pressed	• Replace TRIAC of the PCB
	Check if water is supplied continuously when the level reaches "High" ➔ • Check if the level-sensing hose is bent • Check if the level-sensing hose is filled with water • Check if water is not supplied when the level is set to "Middle"	• Unfold the bent hose • Air leakage in the hose • Replace the sensor
No drain	Check if the drain hose is on the floor	Place the hose on the floor.
	Check the drain synchronous motor ➔ Check voltage at both ends of the synchronous motor	• Replace the synchronous motor if the voltage is not normal • Replace the PCB if the voltage is normal
	Check if impurities are collected in the drain bellows	Clean the impurities

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ABOUT THIS MANUAL

VISION CREATIVE, INC.
서울 종로구 통의동
6번지 이룸빌딩 4층

담 당	민가영 님	
MODEL	KUF-150Q (멕시코향 영문 S,G)	
접 수	2010.09.27	
일 정	1차	
	2차	
	3차	
	4차	
	5차	
제 판	한	인 쇄
규 격		

MEMO 총 40p

10.09.27-표지 (파생 DWF-150Q -> KUF-150Q), 1p, 3p, 4p, 5p, 11p, 13p, 14p, 15p, 16p, 18p, 19p, 20p 수정_ 신규 13p

10.09.28-19p, 20p, 24p, 25p, 26p, 27p, 28p, 29p, 30p, 31p, 32p, 33p(페이지 추가 5페이지) 수정_ 신규 12p

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